edge it to have been learned from their Tupian neighbors, the Apiaca. In early times, this bark canoe was used only to cross large streams when on a war expedition. Small streams were crossed either on fallen logs or by swimming. Today, canoes are in greater use, but very few are owned among those Mundurucú of the savannahs.

An additional factor limiting fishing is that the annual rains cause the rivers to overflow their banks allowing the fish to disperse through the forest in search of fallen berries and fruits. During this season, fishing is very difficult throughout the entire rain forest region, even for those people having canoes. For the Mundurucú, who had to fish from the river banks, it was a shear impossibility. The Indians of the present village of Cabruá complain that they have no canoes and that to fish during the rainy season would involve wading through the igapó, or flooded forest, impractical due to poisonous and constrictor water snakes, covered roots and logs, and the virtual assurance of failure.

Dry season fishing was done by two means. The first of these was to fish from the river bank with bow and arrow. To facilitate this technique, platforms were often built on the limbs of trees overhanging the water. The Mundurucú have great skill in fishing with the bow and arrow, and it is still preferred to the hook and line, which was introduced by the whites and is only used during the rainy season when the fish are scarcer and at a greater depth.

7: Murphy E-5 (1952-1953)1957 SQ13 Mundurucu SQ13

even short expeditions could well take a party over 100 miles from home; and 100 miles through dense, trackless forest and across major streams is no mean trip.

It is obvious that Mundurucú warfare consisted of much more than sporadic and short forays. The average party campaigned only during the dry season, setting out when the rivers fell in May and returning before they again rose in November. Longer expeditions set out at the end of the rains and remained in the field throughout the rainy season and the following dry period, returning before the next rains.

As among the Indians of the North American Plains, youths sought openly for the excitement of war and looked upon it as a means of self-validation and aggrandizement of prestige. But unlike the Plains Indians, the Mundurucú did not openly assert this prestige once it was won; if anything, the person who achieved status became even more self-effacing and less prone to open competitiveness. The young men, however, did not embark upon raids by themselves. They expressed their desire to the chief of the village in words indicative of the martial disposition of the society: "My grandfather, take us to hunt the pariwat. We wish to die in the forest, not in the village." The chief consulted with the older men in order to decide whether the occasion was auspicious. If there was general approval, he proceeded to organize a war party that would include the eager young but would be under the competent direction of experienced elders, for age in Mundurucú society was an important criterion of status.

Although the initiative for a war originated in one village, men from several villages participated. The determination of a village to form a war party was quickly communicated to other communities, but a formal invitation had to be extended. This was carried by a man of the *Muchachá* society, a group of older warriors who were especially well versed in Mundurucú lore and songs and who had taken enemy heads. As the messenger neared each village he sounded three short blasts on a horn used only by members of the society, and was answered by a like signal from a Muchacha of the village being invited. After entering the village, he delivered the invitation and proceeded on his itinerary, collecting volunteers from a number of communities.

Intervillage cooperation enabled the Mundurucú to place large war parties in the field without stripping any one village of all its manpower. Those who took part generally desired to clear land for gardens first, but even when this was not possible or when the expedition lasted more than a year, the horticultural cycle could be maintained by those remaining behind. The problem of leadership of a group drawn from several communities was resolved by delegating authority to two village chiefs who were also members of the Muchacha society. Actually, the two formal leaders did not have absolute control, and all important decisions were made by the older men of the expedition acting as a body.

The war party was accompanied by the wives of the warriors and a number of unmarried girls. Their tasks were to carry cooking utensils and all of

12:Murphy E-5 (1952-1953) 1960
SQ13 Mundurucu SQ13

while the lands lying north of the last rapids, the Cachoeira de Maranhão, will be termed the "lower Tapajós"; this division follows local usage. The traditional location of their villages has been in a high and hilly area inland from the Tapajós, between the Cururú and Tropas rivers. This is a region of mixed savannah and forest in which several minor tributaries of the Tapajós have their headwaters. Topographically, this high savannah land is a continuation of the Serrainho Cachimbo; it extends northwestward through the Mundurucú country and across the Tapajós at the Cachoeiras de Capoeira and Chacorão. Beyond this point there is some savannah land at the headwaters of the Secundury and Abacaxis rivers, but the terrain soon flattens out into the great, forested Amazon lowland encompassed by the Negro and Madeira rivers.

The savannahs in which the Munduruú have long dwelled are considered agreeable by Indians and Brazilians alike, although the latter do not live in the area. The villages are usually situated on high, grassy knolls, and some offer vistas of twenty miles across forests and open country, low hills, and valleys. The local streams are small, but the water is cool and pure. And the forests are far richer in game than in the more heavily settled areas of the Amazon.

The climate of the upper Tapajós follows a more pronounced wet-and-dry cycle than that of the Amazon valley proper. The rains begin in mid-September and increase in frequency and intensity for the next three months. The heaviest rains fall between January and March; then they gradually slacken until the dry season commences in June. The great extremes between wet and dry seasons can be seen from the following figures on average January and July rainfall, collected by the Cururú Mission. During 1945–1951, the average January rainfall was 420.6 milli-

[Text continues on page 15]

12:Murphy E-5 (1952-1953) 1960
SQ13 Mundurucu SQ13

meters, but during July in the same period an average of only 6.05 mm. fell. The extremes during this seven-year ranged from 530.4 mm. in January, 1947, to no rainfall in July, 1945, and again in 1951. The rivers rise and fall with the rains, overflowing their banks in November or December and receding in May.

Contrary to popular belief, the heat is seldom excessive in this part of Brazil. Although the sea breezes that blow up the Amazon from the sea as far as Manaos every evening are not felt in the upper Tapajós, the temperature usually drops at night to very comfortable levels. It was my experience that one could use pajamas and two cotton blankets at night; the Munduruců, who do not possess such luxuries, generally sleep in their cotton clothes and awaken at three or four in the morning to light a small fire beneath their hammocks. There are no great variations in temperature from one month to another. Days are slightly warmer and nights cooler during the dry season, but the lower humidity makes it more agreeable than the rains. Maximum temperatures throughout the year range between 87° and 95° F. (30° and 35° C.), minimum temperatures between 60° and 77° F. (17° and 25° C.). During June, a cold wind blows from the distant Andes and chills the entire region for two to four days. Temperatures then fall to as low as 63° F. (17° C.).

THE SOCIAL ENVIRONMENT

The Munduruců habitat is surely not an earthly paradise, but neither is it the "green hell" so often pictured by royalty-minded travelers and writers. The Brazilians of the Tapajós River, however, do live in a social and economic hell. They distinguish themselves from the Indians by the self-designation of *civilizado* or, less often, *cristão* (Christian). The Indian is commonly called *caboclo* by them,

12:Murphy E-5 (1952-1953) 1960
SQ13 Mundurucu SQ13

226 [36] streams rely primarily upon fish for protein. The savannah villages are several hours inland from the nearest navigable streams. This settlement pattern was well adapted to the defensive requirements of a warrior society, but it removed the communities from the best fishing sites. The narrow, shallow streams within easy reach of the villages yield only smaller species of fish and in limited quantities.

177 501 The Munduruců relied little on the river system for food or transportation in times past, as is shown by the fact that only in recent years has the dugout canoe been adopted on even a small scale. The modern Munduruců canoe is usually of the double ended plank type made by the Brazilians and sold to the Indians by the rubber traders; before contact with the whites the only water craft used was the bark canoe. Not even this canoe, however, was native to the Munduruců for they acknowledge having acquired it from their Tupian-speaking neighbors, the Apiacá. In early times, the bark canoe was used only to cross large streams when the Indians were on war expeditions. Small streams were crossed either on fallen logs or by swimming. Today, canoes are in greater use, but very few are owned among the Munduruců of the savannahs, despite their annual dry-season residence on large streams. Only two men in the village of Cabruá owned canoes and no one in Cabitutú had one.

226 [32] An additional factor limiting fishing is that the annual rains cause the rivers to overflow their banks, allowing the fish to disperse through the flooded forest where they feed on fallen berries and fruits. During this season, fishing is difficult in the rain-forest region, even for people having canoes. For the Munduruců, who have to fish with bow and arrow from the river banks, it is almost impossible. The modern residents of Cabruá say that their lack of canoes would make it necessary for them during